CLAIMS:

1. (previously canceled)

2. (previously canceled)

3. (currently amended) A nucleic acid synthesizer, comprising:
   a) one or more reaction chambers, wherein said reaction chambers comprise one or more nucleic acid synthesis columns; and
   b) a heating component configured to heat said one or more reaction chambers during a synthesis reaction.

4. (original) The nucleic acid synthesizer of Claim 3, wherein said heating component comprises a resistance heater.

5. (original) The nucleic acid synthesizer of Claim 3, wherein said heating component comprises a Peltier device.

6. (original) The nucleic acid synthesizer of Claim 3, wherein said heating component comprises a heated reagent.

7. (original) The nucleic acid synthesizer of Claim 3, wherein said heating component comprises a magnetic induction device.

8. (original) The nucleic acid synthesizer of Claim 3, wherein said heating component comprises microwaves.

9. (original) The nucleic acid synthesizer of Claim 3, wherein said heating component comprises a transfer of heat from a fluid or a gas.

10. (currently amended) A nucleic acid synthesizer, comprising:
    a) one or more reaction chambers containing an oligonucleotide, wherein said reaction chambers containing an oligonucleotide comprise one or more nucleic acid synthesis columns; and
    b) a heating component[, wherein said heating component is configured to heat said one or more reaction chambers during a synthesis reaction wherein said oligonucleotide is coupled to a synthesis reagent] configured to heat said one or more reaction chambers containing an oligonucleotide during a synthesis reaction.